## **CLAIMS**

1. An article comprising

a substrate; and

an invisible symbol on the substrate,

wherein the invisible symbol is formed by a compound which includes a cyano group and has an infrared absorption wavelength apart from that of the substrate when heated.

- The article of claim 1, wherein the compound has a polymer containing a cyano group.
- 3. The article of claim 1, wherein the substrate is made of paper, polymer or cloth.
- 4. The article of claim 1, wherein the compound emits infrared light when heated to 50 degree in Centigrade or more.
- 5. The article of claim 1, wherein the invisible symbol is a barcode having minimum bar width about 250 micro-meter.
- 6. The article of claim 1, wherein the wavelength of infrared emission is around 4.5 micro-meter.

7. The article of claim 1, wherein the invisible symbol is printed on the substrate using a laser beam printer.